



Digital Collections @ Dordt

Faculty Work Comprehensive List

10-2016

Faith Connections in the Math Classroom

Valorie L. Zonnefeld

Dordt College, valorie.zonnefeld@dordt.edu

Ryan G. Zonnefeld

Dordt College, ryan.zonnefeld@dordt.edu

Follow this and additional works at: https://digitalcollections.dordt.edu/faculty_work



Part of the [Christianity Commons](#), [Education Commons](#), and the [Mathematics Commons](#)

Recommended Citation

Zonnefeld, V. L., & Zonnefeld, R. G. (2016). Faith Connections in the Math Classroom. Retrieved from https://digitalcollections.dordt.edu/faculty_work/577

This Conference Presentation is brought to you for free and open access by Digital Collections @ Dordt. It has been accepted for inclusion in Faculty Work Comprehensive List by an authorized administrator of Digital Collections @ Dordt. For more information, please contact ingrid.mulder@dordt.edu.

Faith Connections in the Math Classroom

Abstract

Looking for ways to make faith connections in your math classroom? The Zonnefelds present a framework, developed in collaboration with local teachers, that synthesizes faith connections, the TfT framework, and Common Core standards.

Keywords

faith, classroom climate, image of God

Disciplines

Christianity | Education | Mathematics

Comments

Presented at the Heartland Christian Educators' Convention, held on the campus of Dordt College, October 6 & 7, 2016.

Faith Connections in the Math Classroom

Drs. Ryan and Valorie Zonnefeld



Introductions

- What is your favorite lesson or concept to teach in mathematics?
- Why?
- Why do we have to learn this?
- Does your response reflect a Biblical view of mathematics?

Context

- Work in progress
- Integrality of faith and mathematics is a journey
- Vermeer 2011
 - Vertical flow of EQs
 - Spiral EQs by school system

Contributors

- Rebecca De Smith: Sioux Center Christian, K-8 Discovery (“TAG”)
- Lynette Feenstra: Hull Christian, Kindergarten
- Colleen Horstman: Hull Christian, 2nd grade
- Carrie Top: SW Christian High, mathematics
- Aaron Van Beek: Dordt College education major
- Kate Van Weelden: Dordt College education major

How can I teach math to allow affordances for spiritual growth?

Intentionally planning for the teachable moment

David Smith

- Fragmented vs. Coherent
 - Quoting the Bible doesn't change the heart
 - Shouldn't use the Bible to score points
- Spiritualized vs. Grounded
 - Drifts off into the spiritual, with no real life connection
 - Frame in issues of service, love, justice...
- Decorative vs. Authentic
 - The Bible is brought in, but never really used
 - Don't strip the Bible of its authority
 - A bumper sticker....it doesn't really change anything

Common Core State Standards for Math

- Organized by grade level for Kindergarten through eighth grade and domain for high school

3rd Grade

- What do we learn about God by studying mathematics? **(O-D)**
 - God is a God of order
 - Seen through properties of multiplication **3.0A.B**
 - Jer. 33:25 "This is what the LORD says: 'If I have not made my covenant with day and night and established the laws of heaven and earth
 - **Patterns 3.0A.D**

The Five Views of Mathematics

(Reys, Lindquist, Lambdin and Smith, 2015)

- A study of patterns
- A way of thinking
- An art
- A language
- A tool

3rd Grade

- What do we learn about God by studying mathematics? (O-D)
 - God is a God of order
 - Seen through properties of multiplication 3.0A.B
 - Jer. 33:25 “This is what the LORD says: ‘If I have not made my covenant with day and night and established the laws of heaven and earth
 - Patterns 3.0A.D

Teaching for Transformation Throughlines

- Image-Reflector (I-R)
- God-Worshipper (G-W)
- Idolatry-Discerner (I-D)
- Earth-Keeper (E-K)
- Beauty-Creator (B-C)

- Justice-Seeker (J-S)
- Creation-Enjoyer (C-E)
- Servant-Worker (S-W)
- Community-Builder (C-B)
- Order-Discoverer (O-D)

Teaching for Transformation

Order-Discoverer (O-D)

- Who made math?
- What do we learn about God by studying mathematics?
- What **patterns** and relationships did God embed in mathematics?
- How can we use **patterns** and relationships to serve?

3rd Grade

- What do we learn about God by studying mathematics? **(O-D)**
 - God is a God of order
 - Seen through properties of multiplication **3.0A.B**
 - Jer. 33:25 “This is what the LORD says: ‘If I have not made my covenant with day and night and established the laws of heaven and earth
 - **Patterns 3.0A.D**

Teaching for Transformation Throughlines

[illegible]

CCSS for Mathematical Practice

Image-Reflector (I-R)

- How does an image reflector make sense of problems and demonstrate perseverance in solving them? **MP1**
- How does reasoning abstractly and quantitatively reflect Christ's image? **MP2**
- How does an image reflector construct viable arguments and humbly critique the reasoning of others? **MP3**
- How do we reflect God's image when we model with mathematics? **MP4**
- How do image-reflectors use mathematical **tools** to solve problems? **MP5**
- How does communicating with precise **language** reflect Christ to the world? **MP6**
- How can noticing **patterns** and structures help reflect Christ in service? **MP7**
- How do we reflect Christ as we look for and express regularity in repeated reasoning? **MP8**

Reading Time

Grade Band Discussions

- K-2

- 3-5

- 6-8

- High School

Whole Group Discussion

Our World Belongs to God #50

In education we seek to acknowledge the Lord by promoting schools and teaching in which the light of his Word shines in all learning, where students of all ability, are treated as persons who bear God's image and have a place in his plan.